REMARKS

Reconsideration and allowance are requested.

The informalities noted for claims 3 and 22 have been corrected by amendment.

The Examiner continues to reject claims 1-7, 9-17, and 19-29 for anticipation based on Lindskog et al. This rejection is respectfully traversed.

To establish that a claim is anticipated, the Examiner must point out where each and every limitation in the claim is found in a single prior art reference. *Scripps Clinic & Research Found. v. Genentec, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991). Every limitation contained in the claims must be present in the reference, and if even one limitation is missing from the reference, then it does not anticipate the claim. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565 (Fed. Cir. 1986). Lindskog fails to satisfy this rigorous standard.

Lindskog discloses a system to achieve an increased diversity when transmitting a signal d(t), which is divided into two equally-sized blocks or sub-sequences $d_1(t)$ and $d_2(t)$. The transmitted frame is divided into two blocks, and known symbols are introduced between the two blocks as illustrated in Figure 7. Each block or sub-sequence $d_1(t)$ and $d_2(t)$ contains corresponding information content that is created simply by time reversal and complex conjugation of that same information content. See Figure 5.

But Lindskog does not disclose transmitting for each layer multiple different blocks "including non-identical information content" because $d_1(t)$ and $d_2(t)$ belong to the same signal d(t) and include the same information content. Thus, the Examiner's position that simply dividing a signal in half meets the claim language of "different" simply because the symbols used to represent the same information content are different is no longer viable because the

independent claims clarify that the different sub-sequences do not have the same information content.

Paragraph [0064] in Lindskog describes that the "time-reversal space-time block coding" can handle intersymbol interference and that it may be combined with transmit delay diversity. Lindskog's goal is to double the diversity while maintaining the same transmission capacity. But as explained on page 7, line 25 and following of the instant application, the claimed approach almost *doubles* the transmission capacity without the risk of inter-layer ISI. In contrast, Lindskog only transmits one sequence of symbols d(t) using two antennas rather than transmitting multiple different sequences of symbols that convey different information content at the same time using multiple antennas. His goal is to increase redundancy rather that increase the data rate. Rather than just transmitting the parts of d(t) $d_1(t)$ and $d_2(t)$ using two different antenna, Lindskog increases the reliability of the transmission by generating a different form of the same data content in the form of $d_1^*(N-t)$ and $-d_2^*(N-t)$ and transmits that as well. It is a good way to combat multi-path fading, but it does not increase the effective data rate as does the claimed approach and apparatus. This difference in transmission capacity is plain evidence that Lindskog's teachings do not anticipate the claimed diagonally layered multi-antenna transmission. Withdrawal of the anticipation rejection is requested.

Claims 2-6 and 12-16 stand rejected under 35 USC 103 for obviousness based on Lindskog and Li. This rejection is traversed.

Li discloses a system for selectively introducing pilot symbols at predetermined tones in OFDM blocks. The words "channel memory" are not mentioned in Li so it is difficult to understand how Li remedies the admitted deficiency in Lindskog. Nor does Li overcome the

primary difference noted above with respect to Lindskog. Withdrawal of this rejection is requested.

The application is in condition for allowance. An early notice to that effect is requested.

Respectfully submitted,

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